CLAIMS:

1.   A method of estimating computing system resource
        usage for each transaction type, comprising the steps
        of,

-       obtaining utilisation data of a system resource for
        each resource type and transaction count data for
        each transaction type as input data, and

-       applying a linear least squares algorithm to the
        input data to provide an estimate of resource usage
        for an individual transaction type within the
        computing environment,

        wherein the application of the linear least squares
        algorithm comprises the further steps of,

-       providing a matrix, the size of the matrix being
        defined by the number of transaction types and the
        number of resource types,

-       storing the sum of the cross-products of each
        resource type and each transaction type in the
        matrix,

-       storing the sum of the cross-products of each
        transaction type with each other transaction type in
        the matrix, and

-       at selected time intervals, applying a further
        mathematical algorithm to derive an estimate of the
        resource usage per transaction type.

2. A method in accordance with claim 1, comprising the
further step of dividing the computation into separate
sub-parts.

3. A method in accordance with claim 1 or claim 2, wherein
the utilisation data includes a resource utilisation value
for each resource type for each given time interval, and
the transaction count data includes the total number of
transactions executed for each transaction type in each
given time interval.

4. A method in accordance with claim 2 or claim 3, wherein

the number of calculations required to produce an estimate of resource usage by transaction type are reduced by computing a select number of cross-products from the total number of possible cross-products in the
5   matrix.

5. A method in accordance with claim 4, wherein the mathematical algorithm is the Cholesky method.

6. A system for estimating computing system resource usage for each transaction type, comprising,
10   -   means for obtaining utilisation data of a system resource for each resource type and transaction count data for each transaction type as input data, and
     -       means for applying a linear least squares algorithm to the input data to provide an estimate of resource
15   usage for an individual transaction type within the computing environment,

wherein the means for the application of the linear least squares algorithm further comprises,
     -       means for providing a matrix, the size of the matrix
20   being defined by the number of transaction types and the number of resource types,
     -       means for storing the sum of the cross-products of each resource type and each transaction type in the matrix,
25   -   means for storing the sum of the cross-products of each transaction type with each other transaction type in the matrix, and

means for, at selected time intervals, applying a further mathematical algorithm to derive an estimate of the
30   resource usage per transaction type.

7. A system in accordance with claim 6, further comprising means for dividing the computation into separate sub-parts.

8. A system in accordance with claim 6 or claim 7, wherein
35   the utilisation data includes a resource utilisation value for each resource type for each given time interval, and the transaction count data includes the total number of

transactions executed for each transaction type in each given time interval.

9. A system in accordance with claim 7 or claim 8, wherein the number of calculations required to produce an estimate
5 of resource usage by transaction type are reduced by computing a select number of cross-products from the total number of possible cross-products in the matrix.

10. A system in accordance with claim 9, wherein the mathematical algorithm is the Cholesky method.

10 11. A computing program arranged, when loaded on a computing system, to control the computing system to implement the method of any one of claims 1 to 5.

12. A computer readable medium providing a computer program in accordance with claim 11.